Appl. No. 10/688,078 Attorney Docket No. 81784.0287 Amdt. Dated December 26, 2007 Customer No.: 26021

Reply to Office Action of October 18, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A solid image capturing element, comprising:

a plurality of vertical shift registers arranged to each correspond to a column of a plurality of light receiving pixels in a matrix arrangement.

a horizontal shift register provided on an output side of the plurality of vertical shift registers, and

an output section provided on an output side of the horizontal shift register,

wherein

over one major surface of a semiconductor substrate of one conductive type, a reverse first semiconductor region of an opposite conductive type and a second semiconductor region of the opposite conductive type and having a higher dopant concentration than that of the first semiconductor region are semiconductor region is formed over one-major surface of one conductive semiconductor substrate,

the horizontal shift register is formed in the first semiconductor region; and

the output section is formed in the second semiconductor region.

the plurality of light receiving pixels, the plurality of vertical shift registers, the horizontal shift-register, and the output section are formed in the semiconductor region, and

the concentration of dopants in a portion of the semiconductor region where the output section is formed is higher than the concentration of dopants in Appl. No. 10/688,073 Attorney Docket No. 81784.0287 Amdt. Dated December 26, 2007 Customer No.: 26021

Reply to Office Action of October 18, 2007

another portion of the semiconductor region where the horizontal shift register is

 (Original): The solid image capturing element according to claim 1, further comprising:

an output gate formed on the semiconductor substrate at a boundary between the horizontal shift register and the output section.

3. (Currently Amended): The solid image capturing element according to claim 1, wherein the concentration of dopants in the portion of the semiconductor region where the horizontal shift register is formed is higher than the concentration of dopants in a still further portion of the semiconductor region where the plurality of light receiving pixels and the plurality of vertical shift registers are formed.

over the one major surface of the semiconductor substrate, a third semiconductor region of the opposite conductive type and having a lower dopant concentration than that of the first semiconductor region is formed, and

the plurality of light receiving pixels and the plurality of vertical shift registers are formed in the third semiconductor region.

4. (Original): A method for manufacturing a solid image capturing element having a plurality of vertical shift registers arranged to each correspond to a column of a plurality of light receiving pixels in a matrix arrangement, a horizontal shift register provided on an output side of the plurality of vertical shift registers, and an output section provided on an output side of the horizontal shift register, comprising: Appl. No. 10/688,073 Attorney Docket No. 81784.0287 Amdt. Dated December 26, 2007 Customer No.: 26021

Reply to Office Action of October 18, 2007

a first step of forming over one major surface of a conductive semiconductor substrate a first reverse conductive semiconductor region having a first dopant concentration:

a second step of forming over the one major surface of the conductive semiconductor substrate a second reverse conductive semiconductor region having a second dopant concentration which is higher than the first dopant concentration; and

a third step of forming the horizontal shift register on the first reverse conductive semiconductor region and the output section on the second reverse conductive semiconductor region.

- 5. (Original): The method for manufacturing a solid image capturing element according to claim 4, further comprising:
- a fourth step of forming over the one major surface of the conductive semiconductor substrate a third reverse, conductive semiconductor region having a third dopant concentration which is lower than the first dopant concentration,

wherein

- at the fourth step, the plurality of light receiving pixels and the plurality of vertical shift registers are formed in the third semiconductor region.
- 6. (Original): The method for manufacturing a solid image capturing element according to claim 4, wherein a dopant is doped in a stepwise manner to the first reverse conductive semiconductor region and the second reverse conductive semiconductor region, and

doping of the dopant is performed commonly at least once to the first reverse conductive semiconductor region, the second reverse conductive semiconductor region, and the third reverse conductive semiconductor region.